



WINTER 2014



After clearing the industrial zone east of downtown St. Paul, the Hazel Park, Mahtomedi, East 4th Street and Phalen Park cars climbed the long East 7th Street hill, originally conquered by cable cars, which ran from 1889 to 1933. Ramsey Historical Society collection.



TWIN CITY LINES

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Minnesota Streetcar Museum
P. O. Box 14467 University Station
Minneapolis, MN 55414-0467

(952) 922-1096

www.trolleyride.org

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Aaron Isaacs, Editor
3816 Vincent Avenue South
Minneapolis, MN 55410
612-929-7066
aaronmona@aol.com

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By Trolley to North St. Paul

-Aaron Isaacs

First, commuter trains

North St. Paul is one of a number of free-standing small towns near the Twin Cities that evolved into suburbs, but still retain that small town feel. Others include Hopkins, Osseo, Wayzata, Excelsior, White Bear Lake and Lake Elmo. The Minnesota, St. Croix & Wisconsin brought rail service to town in 1884. The line became part of the Wisconsin Central in 1888. North St. Paul was the second station (the first was the junction with the St. Paul & Duluth at Gladstone in Maplewood) after leaving St. Paul headed for central Wisconsin and Chicago.

North St. Paul quickly developed into something of a factory town, and featured four daily commuter train round trips to St. Paul. They served four closely spaced stations within North St. Paul. From west to east they were named Colby Avenue (off the left side of the map), Indiana Street ("A" circled on map), North St. Paul ("B" on map between Margaret and Charles Streets) and Castle ("D" on map). The 1887 aerial drawing at right also shows a Division Street station ("C" on map) located at Century Avenue, but it doesn't appear in the timetables. In addition, two daily pairs of long distance trains also stopped at Castle rather than North St. Paul.

From 1890 to 1893 the Northern Pacific leased the Wisconsin Central, and, for awhile, extended the North St. Paul commuter trains to Stillwater via Duluth Junction and the NP's Stillwater branch.

We don't know exactly when the commuter runs ceased, but it probably was related to the coming of streetcar competition in 1892. By 1910, long distance trains no longer stopped in North St. Paul.



This 1887 map shows North St. Paul before the streetcars arrived. The commuter train stations are circled. North St. Paul Historical Society collection.

NORTH ST. PAUL Short Line Trains.

Leave Union Depot.	Arrive Colby Avenue.	Ind. St.	E. St. P.	Castle.
6:10 a.m.	6:19 a.m.	6:31 a.m.	6:33 a.m.	6:35 a.m.
9:30 a.m.	9:49 a.m.	9:51 a.m.	9:53 a.m.	9:55 a.m.
12:45 noon	.....	.....	.....	1:10 p.m.
2:00 p.m.	2:19 p.m.	2:31 p.m.	2:33 p.m.	2:35 p.m.
5:30 p.m.	5:49 p.m.	5:51 p.m.	5:53 p.m.	5:55 p.m.
8:35 p.m.	.....	.....	.....	9:00 p.m.
Leave Castle.	Arrive E. St. P.	Ind. St.	Colby Avenue.	U. Depot.
6:35 a.m.	.....	.....	.....	7:15 a.m.
7:50 a.m.	7:59 a.m.	7:56 a.m.	7:58 a.m.	8:15 a.m.
11:35 a.m.	11:37 a.m.	11:39 a.m.	11:41 a.m.	12:00 noon
2:57 p.m.	.....	.....	.....	3:35 p.m.
4:00 p.m.	4:09 p.m.	4:04 p.m.	4:06 p.m.	4:35 p.m.
6:20 p.m.	6:23 p.m.	6:24 p.m.	6:26 p.m.	6:45 p.m.

Front cover: This issue is devoted to the St. Paul-North St. Paul portion of the longer suburban line that reached White Bear Lake, Mahtomedi and Stillwater. It was divided into two distinct parts, the double-tracked city streetcar out East 7th Street, then north on private right of way to Hazel Park, and the single track, meandering country trolley. The front cover shows where the two met at Ivy Avenue. An inbound car is leaving the single track. Stan Griffith photo.

A steam motor line

The North St. Paul Railroad opened in 1890 from a connection with the East 7th Street cable car line at Duluth Avenue on St. Paul's east side. The NSP bought a used steam motor and four coaches from Minneapolis Street Railway, surplus after the electrification of the narrow gauge Minneapolis, Lyndale & Minnetonka. Before it could be used, the rolling stock had to be converted to standard gauge.

The NSP commenced hourly midday and half-hourly rush hour service. It wasn't particularly fast compared to the WC's commuter trains, which required only 20 minutes from North St. Paul to St. Paul Union Depot. Including the transfer to the cable car, a one-way trip on the NSP probably consumed about an hour.

The North St. Paul Railroad also hauled some freight. There were interchanges to the Omaha Road at the Hazel Park crossing, and the Soo Line in North St. Paul. Early maps show a couple of industrial spurs serving factories in North St. Paul.

The St. Paul & White Bear RR

The NSP was reorganized in 1892 as the St. Paul & White Bear Railroad. That year the line was electrified, and extended beyond North St. Paul to Mahtomedi, where a track connection



North St. Paul Railroad Co.

TIME TABLE.

Connects with East Seventh Street Cable at Duluth Ave.

DAILY, EXCEPT SUNDAY.

Leave North St. Paul—		Leave Duluth Ave.—	
6:00 a. m.	3:00 p. m.	6:45 a. m.	3:30 p. m.
7:15 "	4:00 "	7:45 "	4:30 "
8:00 "	5:00 "	8:30 "	5:40 "
10:00 "	6:10 "	10:30 "	6:40 "
11:00 "	7:15 "	11:30 "	7:50 "
1:00 p. m.	10:30 "	1:30 p. m.	11:30 "

SUNDAY TRAINS.

Leave North St. Paul—		Leave Duluth Ave.—	
9:00 a. m.	4:00 p. m.	9:30 a. m.	5:30 p. m.
10:00 "	4:30 "	10:30 "	6:00 "
11:00 "	5:00 "	11:30 "	6:30 "
1:00 p. m.	5:30 "	1:30 p. m.	7:30 "
2:00 "	6:00 "	2:30 "	8:45 "
2:30 "	7:00 "	3:00 "	
3:00 "	9:00 "	3:30 "	11:30 "
3:30 "	10:30 "	4:30 "	
		4:30 "	
		5:00 "	

Above: This 1890s bird's-eye view of North St. Paul clearly shows the route of the North St. Paul/St. Paul & White Bear route through town. Although two steam motors are shown, the company owned only one. Look carefully and you can see the company's industrial spurs east of Charles Street. One of them crosses a Wisconsin Central spur. Minnesota Historical Society collection.

Left: This former Minneapolis, Lyndale & Minnetonka steam motor and coaches were purchased second hand from Minneapolis Street Railway and converted to standard gauge. Behind them is the North St. Paul carbarn/powerhouse that appears on the top of the opposite page.



Above: One of the crude looking 1892 Pullman-built StP&WB cars poses at East 7th Street and Duluth Avenue. Note the waiting station with the "Suburban Railway" sign just beyond the bicycle. They connected here with the East 7th Street cable car line.
Below: No photos of the cable line have been found, but the Minnesota Historical Society has this painting of cable cars climbing the 7th Street hill at about Maria Avenue.



Above: The St. Paul & White Bear carbarn/powerhouse last served streetcars in 1899, but here it is in 1951 serving as the North St. Paul municipal garage.
Below: After the cable line was electrified in 1893, passengers continued to transfer at 7th and Duluth until TCRT purchased the StP&WB in 1898.



was made to the Northern Pacific's White Bear Lake-Stillwater branch. A combined carhouse and powerhouse was erected in North St. Paul at Pennsylvania Street (now 1st Street). Eight double-truck motor cars numbered 1-8 were delivered by Pullman. Regular half-hourly passenger service began July 1, 1892. We don't know for sure, but that probably brought an end to the Wisconsin Central commuter trains.

TCRT takes over

Like many small electric lines, the SP&WB was financially weak. The company went into receivership in 1895. According to Russ Olson in *Electric Railways of Minnesota*, service to Mahtomedi was suspended during the winter. However, the company did

establish Wildwood Park, an amusement destination on the southeast shore of White Bear Lake.

TCRT took control the StP&WB in 1898. TCRT undoubtedly upgraded the track and the inconvenient transfer at East 7th Street and Duluth Avenue was replaced with through service. In 1899 the combined carbarn/shops/powerhouse in North St. Paul was abandoned, although it lasted many years as the municipal garage.

Double track was eventually extended to Ivy Avenue in the Hazel Park neighborhood, which became the end of the line for city cars. In 1899 the line was extended to Stillwater and in 1904 to White Bear Lake, but that's beyond the scope of this story.

The Stillwater and White Bear Lake branches were abandoned in 1932, and

thereafter, until the end of service in 1951, the line terminated in Mahtomedi. For this article we'll concentrate on the period from 1932 until abandonment in 1951. Operations became much less complex. The automatic block signals and written train orders were replaced by telephone clearance from the dispatcher at Duluth Station.

Operations

It was TCRT's country trolley, not like the well-engineered Hopkins-Lake Minnetonka line. It was a scenic ride on single track that meandered through pleasant scenery and sneaked through North St. Paul behind the storefronts of the small downtown. That made it a favorite of local trolley fans, and a destination for several fan

trip charters.

This issue of the magazine will concentrate on the portion of line from St. Paul to the Henry Street wye in North St. Paul. A future article will cover the remainder to Mahtomedi.

Mahtomedi and Randolph-Hazel Park local cars shared the tracks out East 7th Street and north on the private right of way to the end of double track at Ivy Street. Local cars terminated at the Hyacinth Avenue wye, a block south of Ivy Avenue. In later years the local and Mahtomedi services were merged somewhat, with some cars running through to Mahtomedi from the Highland Park Ford Plant. Additional rush hour trippers were added between Mahtomedi and downtown.

Once the single-track portion started, the Mahtomedi line took on a completely different character. Except for some side-of-the-street running in North St. Paul, it was entirely on a private right of way that twisted and turned to avoid hills and keep the grade as level as possible. There were periodic short passing sidings.

Unlike regular city streetcars, the interurbans to Stillwater, Mahtomedi and White Bear were always considered "trains", and operations more closely resembled those of a steam railroad. Because the line was single track, motormen or conductors had to stop periodically at company telephone booths located at the passing sidings, call the dispatcher and receive permission to run to the next siding.

This railroad-style operation included running multiple sections of the same train. This practice occurred during the afternoon rush hour. Two cars left downtown at 4:09 and 6:10, with the first terminating in North St.



This circa 1910 view shows a streetcar southbound on Charles Street after crossing the Wisconsin Central tracks. The depot burned in 1911. The freight house across the tracks survives today as part of Heritage Square at the State Fair. North St. Paul Historical Society collection.

Paul and the second in Mahtomedi. The big event was the 5:10 PM departure which had four sections, two to North St. Paul, one to Wildwood and one to Mahtomedi. The first North St. Paul car ran non-stop to the St. Paul city limits at Larpenteur Avenue. In later years, off-peak service on the line was usually once an hour.

Until 1938 the streetcars carried pouch mail between the St. Paul, North St. Paul and Mahtomedi post offices. Newspapers were also carried.

We continue the North St. Paul story with two personal recollections.

Mike's Yellow Dragon

-Michael Buck

As the years go by, some of the best things in life are our memories. The dreadful memories we would like to forget. The good memories we always want to remember. This is my fictional remembrance about a marvelous "Yellow Dragon". It did not breathe fire, like other fairy tale dragons. It did make occasional sparks, though. It moved about on eight wheels rather than on four legs.

I don't quite remember why I labeled the yellow streetcar a dragon. Possibly, it might have been that it was so big. It could have been that the car made noise as it moved about, or that it had a big "eye", (headlight) up front. My childhood mind had the "cow-catcher" (front fender) as being its mouth. Nevertheless, my thoughts declared it to be a dragon.

It ran alongside a village road located one-half block from my childhood home, on 18th Avenue Southeast in North Saint Paul. I first encountered my dragon at the corner of 18th Avenue and Charles Street. It was maybe four years old.

Although the recollection was more than six decades ago (1947), I sometimes think that it was no more than six minutes ago. My dragon's tail was fashioned like a big fishing pole. That pole reached from the red topside,



A block from where Mike saw his first streetcar, a northbound fan trip pauses on Charles Street just north of the Soo Line crossing.

up to a wire, suspended over the village road. Rather than a hook, there appeared to be a funny little wheel at its tip. As the dragon moved about, that little wheel went round and round, sometimes making sparks as it touched certain portions of the suspended wire.

I turned my tricycle around and beat a path for home. I made the three-house sidewalk journey in record time. Skidding to a stop, I stumbled up the stairs, raced along the entrance-walk and scrambled through the front door. I would breathlessly tell my mother of my fabulous discovery. What undoubtedly now commenced was a child's begging campaign; a measure unquestionably employed from time to time by every small child in the community. "Please Mom? Please? Can I ride it? Can I? Can I?"

My crusade focused on traveling aboard that fascinating, marvelous, yellow-colored contraption. The community's streetcar became for me, a most real medium for discovery.

There was a time in this country, a

time before we became infatuated with our motor car, our power airplane, or our pleasure boat, (and now, our technology devices); a time when the trolley car was our love. There was a time in this country when, for countless thousands of people, a trolley ride was less about getting someplace and more about simply going.

My mother finally relented and gave in. My mission was successfully accomplished. She and I would travel to fabulous frontier destinations.

I found that my dragon didn't swallow us up. It welcomed us aboard. My new-found friend would take me on a fantasy ride, gliding through the countryside. As we rode along, I would wonder what lay around the next curve, what came up beyond an approaching trestle or what appeared after a particular straight stretch of track? Eventually, the track would come to an end. The uniformed fellow in charge would carefully back the dragon a little ways and it would carry us forward, back to familiar territory;

home.

We would travel along the edge of Charles Street, pausing for the Soo Line Railway crossing. A short time later, we turned, and moved down what appeared to be an alley. I recognized the back side of the village grocery store that supplied me my Quaker Puffed Wheat breakfast cereal, as well as those mouth-watering Ahl's powder-sugared donuts. I recognized Jim Shore's pool hall and radio-repair shop.

We stopped at Margaret Street and after passengers disembarked or boarded, I would notice the uniformed fellow go into a small shack along side of the track. As the shack door was left open, I would see him talking on an electric telephone. Years later I would learn that the telephone call was the motorman, requesting clearance to proceed west, further along the single track. And then, once again, we were off and running.

Upon leaving Margaret Street, we passed Lugar's Chair Factory. Moments later we would wind around the north side of Bodine's Manufacturing Company. We would follow the Soo Line Railway tracks for a short distance and in so doing, eliminate the need for climbing over a hill.

We crossed the main highway, East 7th Avenue, also called North Saint Paul Road, which took automobile traffic from North Saint Paul into Hazel Park. I noted that there were few houses in sight. I was in unfamiliar territory. It was the countryside. We paused at the Colby Siding for a meet with another streetcar. All of a sudden there was another track, running alongside the track that we were on.

Occasionally, we would travel west, beyond Hazel Park, into downtown Saint Paul. We momentarily paused at the Hyacinth Avenue wye before continuing on and climbing over a busy Omaha railroad line. We finally turned onto a paved road, East 7th Street. Now, there were more houses and stores. Finally, we arrived in

downtown Saint Paul. There I would discover that there was more than one magnificent dragon. There were two. There were three. There were a whole pile of them!

The ride could occasionally become somewhat scary, but my "security blanket" was my mother sitting by my side. What she took as being everyday and commonplace, I took as being my imaginary and exploratory trip into a whole new world. I am sure that I thought, "Wow! Double wow! Triple dog-dare wow!!"

Time would pass. Places would change and a lot of memories would fade. My dragon would hang around for a few more years. And then it would be gone.

A childhood recollection would return some thirty years later, in 1976, when I discovered the streetcar running between Lake's Harriet and Calhoun. My dragon was still giving little girls and boys their opportunity for discovery. And for those of us, not so

little, it sustained a marvelous memory of a time when it seemed that in some places, and for some people, the world would forever be in love with its trolley.

A Trip to North St. Paul in the 1940s

**-Paul Anderson,
North St. Paul Historical Society**

The streetcar played an important role in my early years because my father didn't own a vehicle. Any trip to the city required a trolley ride. Often on Saturdays, Dad, who was a furniture finisher, would work several hours at Restaurant China, a bar and restaurant supplier across from the St. Paul Union Depot. After work we would walk up 4th Street to 7 Corners where Wilder's Baths was located. A hot shower was a treat for those without modern bathing facilities at home.



A westbound Randolph-Hazel Park car approaches Wabasha on 7th Street. William Moneypenny photo.

Wabasha Street and 7th was the popular spot to catch the streetcar to North St. Paul (on the corner in front of Walgreens). If you try to find the same intersection today, it's the corner of Wabasha and 7th Place. Even though it used to be the retail heart of downtown, much of 7th Street no longer exists. Between 7 Corners and St. Peter Street it has been replaced by the St. Paul Companies headquarters, now renamed Travelers Insurance. From St. Peter to Wabasha it's a pedestrian mall. From Wabasha to Minnesota Street it's been replaced by buildings. What they now call 7th Street through much of downtown is actually the former 8th Street.

Okay, back to the trip. If the crowd waiting for our car was large we would often walk a few blocks west to get seating, but Dad would usually give up his seat to a woman when the car filled at later stops. The street is lined with small storefronts. At Cedar Street a loop track takes off to the left, useful for short-turning late cars. The next block is full of five and dime

stores, including Kresge, Woolworth's and W. T. Grant. So far we're sharing the track with the Randolph-Hazel Park, Dale-Phalen and St. Clair-Payne lines. Crossing more tracks at Robert Street, we pass the Golden Rule and Emporium department stores and roll on over Wacouta Street. On the left is the locksmith shop called Kat-Keys (still doing business today since 1924). Nearby on the right is a large barber school (Lee's I believe).

At Broadway the Grand-Mississippi line crosses us and the Grand-Mississippi line joins us. This is one of the two busiest track sections in St. Paul, the other being Wabasha between 9th and 10th Streets. A couple of blocks later the Payne Avenue line turns left on Lafayette. Nearing the Payne Avenue left turn on the south side of 7th was Enright's flour mill where their slogan "When All The Wheat Is In All The Bread All The World Will Be Better Fed" was proudly displayed. We cross the bridge over the railroad throat to St. Paul Union Depot, then start the long 5 percent climb up the East 7th Street hill,

7th and Wabasha was an important place for TCRT. Three lines on 7th Street crossed five lines on Wabasha, and a starter was located there around the clock. A Randolph-Hazel Park car loads up to head for the East Side. St. Paul Dispatch-Pioneer Press photo, Minnesota Historical Society collection.



Above: 7th Street between Wabasha and Jackson Streets was the retail heart of downtown St. Paul. A westbound car has just passed Robert Street and the Golden Rule department store. St. Paul Dispatch-Pioneer Press photo.
Below: East of downtown, a Mahtomedi-bound high speed car crosses the under-construction 7th Street bridge over the railroad throat leading away from the St. Paul Union Depot. Both Minnesota Historical Society collection.

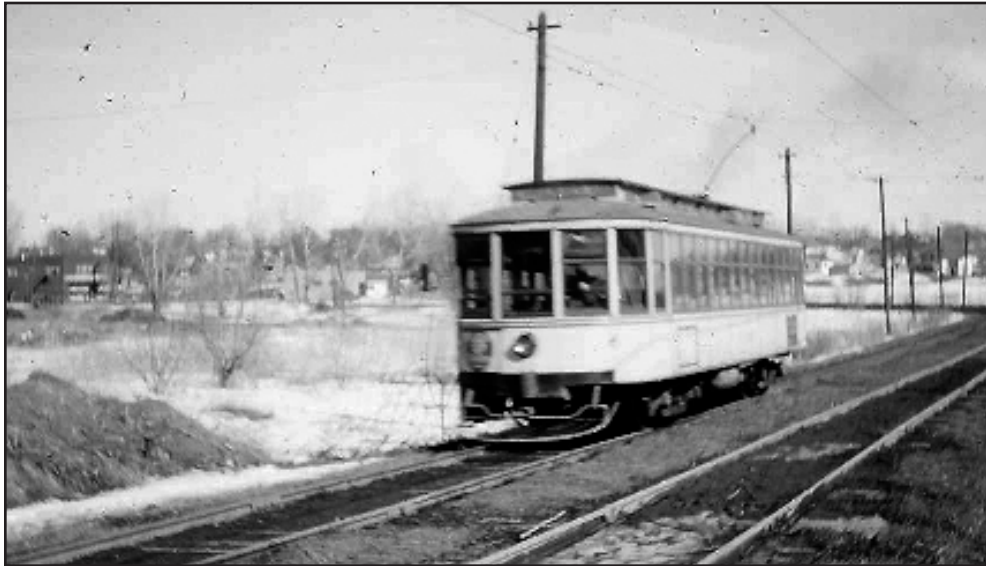


Above and below: Stan Griffith took these photos in 1950 from a streetcar passing Duluth Station. Note the car cleaners in the top photo. See the aerial view on page 23.

which was originally a cable car line. Just past Mounds Blvd on the hill to the right is St. John's Hospital and on the northeast corner at Maria is Eastside Ford and the Maria line turns right. After reaching the top of the hill we pass Merit Chevrolet before crossing Arcade Street where the

Phalen line turns off to the left and we see the huge Minnesota Mining and Manufacturing complex. Just before the Earl Street overpass we see the Paper Calmenson steel fabricating company on the right. After the street turns from northeast to east we pass the U.S. Gypsum roofing factory and then the





Top left: 7th Street ended in the distance at White Bear Avenue and the line entered private right of way. Harlow Callendar photo.
 Left: After a quarter mile it made sweeping 90 degree curve to the north, passing the Harvester Plant (below).
 Above: Following what is now Hazel Street, an inbound car descends the ramp from the Omaha Railroad overpass. John Stern photo, ERA collection.



FLAX TWINE PLANT
 ST. PAUL, MINN.
 INTERNATIONAL HARVESTER CO

Copyright 1917 By
 The Great Northern Co
 Chicago

Duluth Avenue Station where it was always exciting (for a young boy) to see so many streetcars parked in a relatively small area. Soon after, on the north side is Martin Lumber Company. After crossing Johnson Parkway the tracks climbed another hill through a neighborhood of single family homes to reach White Bear Avenue. Here the street ends and we enter private right of way. A quarter mile later the tracks

make a sweeping 90-degree left turn. Today this is Hazel Street, but back then no street was evident. We climb up a fill to the truss bridge over the Omaha Railroad, passing the 26-acre site of International Harvester twine factory (originally the Wood Harvester Works built in 1893). Descending from the bridge, we curve to the northeast. This is the Hazel Park neighborhood of mostly single family homes. At



The double track narrowed to gauntlet track to cross the bridge over the Omaha Road. Harlow Callendar and Kirt Blewett photos.
Right top and middle: Winter views looking south and north from the bridge. Harlow Callendar photos.
Bottom right: Local Hazel Park cars terminated at the Hyacinth Avenue wye. Mahtomedi cars continued beyond. Bill Janssen photo.





The wye for local cars was at Hyacinth. A block later at Ivy Avenue the line narrowed to single track, requiring permission from the dispatcher at Duluth Station to enter. John Stern photo, ERA collection.

Hyacinth Avenue is the wye where the local Hazel Park cars terminate. Just beyond the wye at Ivy Avenue is the end of double track and the first of the wooden company telephone booths. Our motorman leaves the car and enters the phone booth to call the dispatcher for clearance to proceed to Colby Siding.

Moving past the Hillcrest Golf course on the right we cross Larpenteur Avenue. On the inbound side of the tracks is one of the wood

waiting shelters that are placed at a number of stops along the line. We're leaving St. Paul, which is also the end of the city fare zone. From here to North St. Paul, all passengers will pay an extra 6 cents when they get off. We swing left, following a shallow ravine along a creek and enter Colby Siding, where we meet a southbound car. At every siding the motorman calls the dispatcher for clearance, unless the dispatcher had previously given permission to run past the siding.



Leaving the siding the car crests a gentle rise and crosses North St. Paul Road. Rolling down a gentle slope across open farm land we hit the top speed of about 45 mph (it was always more exciting to stand on the back platform where the rocking of the car was more dramatic). At the Soo Line railroad tracks we curve slightly right and parallel the railroad through the Standard Conveyor property, pausing at the railroad spur that crosses the streetcar tracks to enter the plant.

Now we're entering North St. Paul. Describing this part of the line can be confusing because a couple of the street names have changed, so I'll give the TCRT-era name first, followed by the present-day name in parentheses. After the safety stop at the conveyor plant, our car crosses Indiana Street (2nd Street), then crosses Pennsylvania Street (1st Street). Ahead on the left is the old St. Paul & White Bear Railroad carhouse/powerhouse, still standing but used as a municipal garage.

We swing left into the dirt alley (now Seppala Boulevard) that runs behind the commercial buildings of downtown North St. Paul that line 7th Avenue, the main street. I've heard the



Above: Half a mile after entering the single track, the line passed the city limits at Larpenteur Avenue. Inbound passengers could wait in this wood shelter, one of several along the line. It cost an extra six cents to ride to North St. Paul.

Right: Motorman Kirt Blewett took this photo at Colby Siding, located half a mile north of Larpenteur Avenue, where his car was meeting a southbound. Note the movable frog switch and the dual overhead with one trolley wire for each direction.





story that the tracks were placed in the alley to avoid scaring horses on 7th. As it was, the alley was the least attractive route with all the barns and outhouses in view. At reduced speed we cross Helen Street and drop off passengers. After crossing Margaret Street, the primary north-south street in town, we drive on past Luger Mercantile on the left to Charles Street where the car makes a slow turn north (at night a favorite location for boys to pull the wheel off the overhead trolley wire causing the angry motorman to walk to the rear of the car to re-seat the wheel). Traveling north on the east edge of the street we pass Dobbins Manufacturing on the right where the tracks were so close to the entrance that an employee exiting the building was killed by a passing streetcar. The Soo Line depot is directly to the left. TCRT stations a full-time crossing guard at the Soo Line

Track changes

ca1903 Wye installed at Ames Avenue, near Omaha bridge

1911 Wye at Ames Avenue replaced by wye at Ivy Avenue.

1913 Ivy Avenue wye moved to Hyacinth Avenue.

As of 1913, sidings were Colby, Chair Factory, Pullman.

1914 Sidings at Chair factory and Pullman replaced by Soo Line.

1917 2nd track added to Van Dyke, one block east of White Bear Ave.

1920 2nd track added to Harvester Ave.

1922 2nd track added to Ivy

1924 Crossover added at Duluth Ave. so Mahtomedi cars could overtake local cars.

1926 Siding added at Pennsylvania Street, replacing Long Lake siding.

1934 Henry Street wye built. Pennsylvania siding removed.

1944 Henry Street siding added. Colby and Soo Line sidings taken out of service.

1948 Colby and Soo Line sidings removed

1951 line abandoned



Opposite top: An inbound car crosses North Street Paul Road. Will Whittaker photo.

Opposite bottom: Shortly after crossing North St. Paul Road, the line swung northeast to parallel the Soo Line into North St. Paul. John Stern photo, ERA collection.

Right: Just west of Indiana Avenue (now 2nd Street), the streetcar crossed this spur into the Standard Conveyor plant. Forrest Johnson collection.

Below: This photo shows the same scene, but from the other direction. A 1951 Minnesota Railfans Association fan trip pauses at Pennsylvania Avenue (now 1st Street), site of a former passing siding. The Standard Conveyor plant is at left.





Left: The tracks traveled down the alley (now Seppala Boulevard) behind the 7th Avenue commercial buildings. Jim Kreuzberger photo.
Above: A motorette crosses the Soo Line tracks on Charles Street. Will Whittaker photo.
Below: Looking north on Charles Street. Soo Line siding, just north of the railroad crossing, is behind the camera. Jim Kreuzberger photo.
Opposite page: Our North St. Paul trip ends at the Henry Street siding and wye. In later years, all the meets on the Mahtomedi line occurred here. Bob Mehlenbeck and Jim Kreuzberger photos.

tracks. He emerges from his shanty and swings open the steel gate that blocks the streetcar track. We bang over the crossing and enter the Soo Line siding just north of the tracks. This is my stop, a half block from my home on 12th Avenue. Bear in mind that Highway 36 doesn't exist yet, which is why this location looks so different today. The Soo tracks are gone, replaced by the Gateway Trail.

Five short blocks of running along the edge of unpaved Charles Street ends at 18th Avenue, where we turn right. This is another dirt street. In a block we arrive at the Henry Street wye, where shortline North St. Paul cars terminate and most midday Mahtomedi cars meet one another.

Editor's note: That's as far as we're going for this issue. The Mahtomedi, White Bear, Stillwater and Stillwater local lines are too big a story to tell in just one issue, so we'll revisit them in the future.

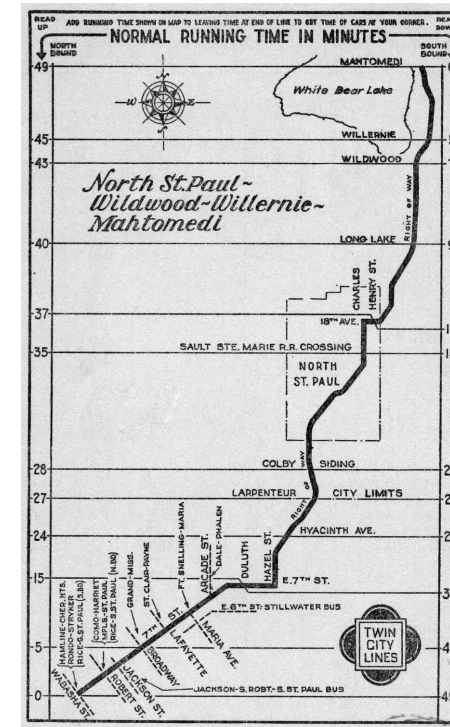




WEEKDAY										SATURDAY									
EASTBOUND					WESTBOUND					EASTBOUND					WESTBOUND				
Leave 7th and Wabasha	Arrive No. St. Paul Henry St.	Arrive Willernie	Arrive Mahto-medi	Arrive Mahto-medi	Leave Mahto-medi	Leave Willernie	Leave No. St. Paul Henry St.	Arrive 7th and Wabasha		Leave 7th and Wabasha	Arrive No. St. Paul Henry St.	Arrive Willernie	Arrive Mahto-medi	Arrive Mahto-medi	Leave Mahto-medi	Leave Willernie	Leave No. St. Paul Henry St.	Arrive 7th and Wabasha	
*4:45	5:07	5:14	5:20	5:24	5:30	5:37	6:15			*4:45	5:07	5:14	5:20	5:24	5:30	5:37	6:15		
5:00	5:37	5:44	5:50	6:01	6:07	6:14	6:56			5:00	5:37	5:44	5:50	6:01	6:07	6:14	6:56		
*5:52	6:14	6:21	6:27			6:42	7:20			*5:52	6:14	6:21	6:27			6:42	7:20		
6:00	6:42					6:53	7:35			6:00	6:40			6:44	6:50	6:58	7:38		
6:53	7:35	7:42	7:48	6:44	6:50	6:58	7:40			6:55	7:34	7:41	7:47			7:03	7:44		
7:37	8:18	8:25	8:31	7:21	7:27	7:35	8:16			7:37	8:16	8:23	8:29	7:21	7:27	7:34	8:14		
8:55	9:33	9:40	9:46	7:21	7:27	7:35	8:16			8:25	9:03			8:02	8:08	8:16	8:58		
9:54	10:32	10:39	10:45	8:04	8:10	8:18	8:56			9:02	9:40	9:47	9:53	9:00	9:06	9:13	9:51		
10:54	11:32	11:39	11:45	8:55	9:01	9:08	9:46			10:02	10:40	10:47	10:53			9:43	10:21		
11:54	12:32	12:39	12:45	9:55	10:01	10:08	10:46			11:02	11:40	11:47	11:53	10:00	10:06	10:13	10:51		
12:54	1:32	1:39	1:45	10:55	11:01	11:08	11:46			12:02	12:40	12:47	12:53	11:00	11:06	11:13	11:51		
1:54	2:32	2:39	2:45	11:55	12:01	12:08	12:46			12:32	1:10			12:01	12:07	12:14	12:52		
2:24	3:02			12:55	1:01	1:08	1:46			1:02	1:40	1:47	1:53	1:01	1:07	1:14	1:52		
3:02	3:40			1:55	2:01	2:08	2:46			1:32	2:10			2:01	2:07	2:14	2:52		
3:33	4:11			2:58	3:04	3:11	3:49			2:02	2:40	2:47	2:53	2:01	2:07	2:14	2:52		
4:09	4:50					3:14	3:55			2:32	3:10					2:44	3:22		
4:09	4:50	4:57	5:03			4:21	5:00			3:02	3:40	3:47	3:53	3:01	3:07	3:14	3:52		
4:37	5:17			4:09	4:15	4:22	5:03			3:32	4:10					3:44	4:22		
5:10	5:50			5:21	5:29	5:32	6:03			4:02	4:40	4:47	4:53	4:01	4:07	4:14	4:52		
5:10	5:50	5:57	6:03	5:11	5:17	5:25	6:03			4:32	5:10					4:44	5:22		
5:10	5:50	5:57	6:03	5:11	5:17	5:25	6:03			5:02	5:40	5:47	5:53	5:01	5:07	5:14	5:52		
5:30	6:09			6:37	6:43	6:50	7:33			5:32	6:10					5:43	6:21		
5:40	6:19					7:08	7:48			6:08	6:46	6:53	6:59	6:04	6:10	6:17	6:55		
6:10	6:50			7:10	7:16	7:23	8:03			6:40	7:19					6:54	7:31		
6:10	6:50	6:57	7:03	8:13	8:19	8:26	9:03			7:15	7:53	8:00	8:06	7:14	7:20	7:27	8:07		
7:15	7:51	7:58	8:04	9:13	9:19	9:26	10:03			8:15	8:51	8:58	9:04	8:13	8:19	8:26	9:03		
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11:15	11:51	11:58	12:04	1:04	1:10	1:17	1:56			12:10	12:46	12:53	12:59	12:08	12:14	12:21	12:56		
12:10	12:46	12:53	12:59	1:54	2:00	2:07				1:00	1:40	1:47	1:53	1:04	1:10	1:17	1:56		
1:00	1:40	1:47	1:53											1:54	2:00	2:07	2:56		

*Leave Duluth Avenue. †To Duluth Ave. only. ‡Transfer passengers to locals at Duluth Avenue.

MEETING POINTS:
#HYACINTH - HENRY ST.



No. 112—IN EFFECT JANUARY 13, 1945									
EASTBOUND					WESTBOUND				
Leave 7th and Wabasha	Arrive No. St. Paul Henry St.	Arrive Willernie	Arrive Mahto-medi	Arrive Mahto-medi	Leave Mahto-medi	Leave Willernie	Leave No. St. Paul Henry St.	Arrive 7th and Wabasha	
7:00	7:35	7:42	7:48	7:59	8:05	8:12	8:50		
8:00	8:38	8:45	8:51	8:59	9:05	9:12	9:50		
9:00	9:38	9:45	9:51	9:59	10:05	10:12	10:50		
10:00	10:38	10:45	10:51	10:59	11:05	11:12	11:50		
11:00	11:38	11:45	11:51	11:59	12:05	12:12	12:50		
12:00	12:38	12:45	12:51	12:59	1:05	1:12	1:50		
1:00	1:38	1:45	1:51	1:59	2:05	2:12	2:50		
2:00	2:38	2:45	2:51	2:59	3:05	3:12	3:50		
3:00	3:38	3:45	3:51	3:59	4:05	4:12	4:50		
4:00	4:38	4:45	4:51	4:59	5:05	5:12	5:50		
5:00	5:38	5:45	5:51	5:59	6:05	6:12	6:50		
6:00	6:38	6:45	6:51	6:59	7:05	7:12	7:50		
7:00	7:38	7:45	7:51	7:59	8:05	8:12	8:50		
8:00	8:38	8:45	8:51	8:59	9:05	9:12	9:50		
9:00	9:38	9:45	9:51	9:59	10:05	10:12	10:50		
10:00	10:38	10:45	10:51	11:11	11:17	11:24	12:00		
11:15	11:53	12:00	12:06	12:07	12:13	12:20	12:56		
12:10	12:46	12:53	12:59	1:04	1:10	1:17	1:56		
1:00	1:40	1:47	1:53	1:54	2:00	2:07	2:56		

‡Transfer passengers to locals at Duluth Ave.

		Miles	City Fare
1	7th & Wabasha	5.97	.10 Cash
2	City Limits	1.07	.07% Token
3	Division St.	3.74	.06 plus City Fare
4	Willernie	11.42	
5	Mahtomedi	13.24	

FOR INFORMATION CALL CEDAR 7381

SCHEDULE SUBJECT TO CHANGE WITHOUT NOTICE

Car Heaters

-Aaron Isaacs

Horse cars usually had no heaters at all. A foot of straw was laid on the floor and passengers could bury their feet in it, but that was about it. The first small electric streetcars got small stoves, generally located in the middle of the car. Our car 78 is a perfect example. The small stove was removed each summer and the gap it left was filled with an additional seat. The warmth was directly related to how close you sat to the stove.

Once TCRT began building large streetcars of its own design, heating improved dramatically. Large commercially produced heaters were located on the left side of the front platform behind the motorman. Although they directly radiated some heat, it was transmitted throughout the car by a convection hot water system. A storage tank was mounted high and behind the heater. It fed pipes along the bottom of the walls that carried the hot



Cavalcade of Stoves!

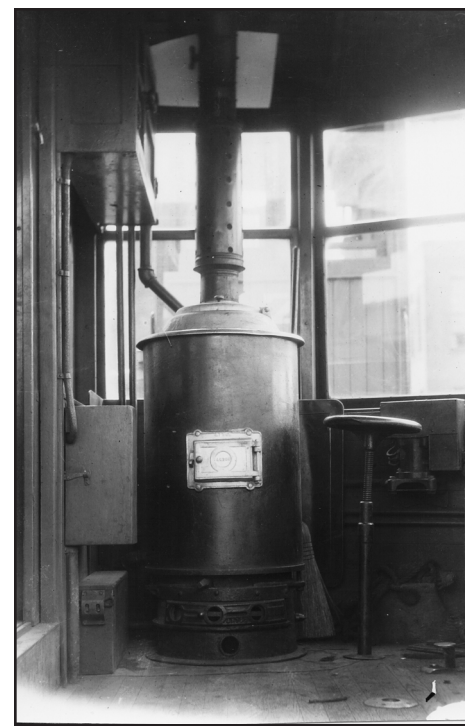
Below left: A typical single trucker of the 1890s. The stove was removed for a seat in the summer.

Above: Early standard car 932, built 1902, with a Baker Heater on the front platform.

Below 2nd from left: A Peter Smith heater.

Below 3rd from left: A Twin City heater.

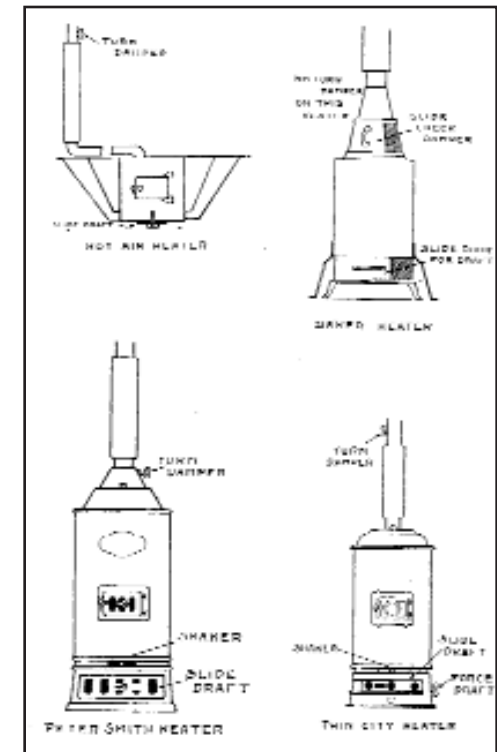
Below right: Excerpt from the TCRT trainmen's rulebook, showing all the heater types.



water throughout the car. This is the system that survives inside our car 265.

The cars built from 1898 to 1907 (cars 737-1290) were equipped with Baker heaters. Those built from 1908 to 1914 (cars 1291-1685) received Peter Smith heaters. Over time, TCRT always moved away from commercial products in favor of home-built designs and began producing its own heaters in 1914. These were installed in new cars 1686-1855, the last of the wood standard cars, produced through 1917. They were also installed in the 1916 experimental lightweights 2000-2000A.

Stoves mounted on the front platform and hot water pipes apparently had disadvantages. I haven't seen documentation of this, but I'm speculating that because the car bodies twisted and flexed during operation, it caused the pipes to leak. If the fire went out, the system could freeze and the pipes would burst. The location of the heater on the front



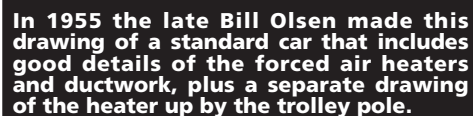
When Snelling Shops began rebuilding standard cars with front exit doors in 1920, it replaced the hot water system with a completely new forced air system. The new TCRT-designed heater was much more compact, and was located under the middle of the car on the right hand side. No longer was it necessary to haul coal into the front platform and ashes out—the fire could be accessed and tended from the outside. Heat ducts ran along the floor on both sides of the car. A vertical stovepipe led to an exhaust chimney in the right rear of the car.

To make matters worse, the cars could fill with fumes. Old rulebooks tell crews to air out the cars during terminal layovers despite the cold

There was a much better technology available—electric heat—but TCRT only partially embraced it. You see it in our car 1300, electric heaters located on both platforms and under seats in the passenger compartment. They're completely clean, heat pretty well and the carbody and platform heaters can be turned on and off independently of one another. Not having to tend the fires made them popular with crews. In the first TCRT history book, *Interurbans Special #14* published in 1953, Ed Nelson notes that the electrically heated cars "have undoubtedly run up far more mileage than any other cars on the system".

Our car 1300 was one of the first 64 standard cars rebuilt for one-man operation in 1928. Before the rebuild all still had their original front platform hot water heaters. These were replaced by all-electric heat. Well, not quite all the heat was electric. The resistors located underneath the front of the car threw off waste heat and that was ducted along the right side of the car floor and up into the right front corner of the passenger compartment. The next time you're inside 1300, check out that duct—it's still there and quite visible.

Built in 1891, East Side Station was the oldest and most antiquated of the carhouses. Tight spacing of the tracks made it difficult to move between the rows of cars to tend the fires, so most of the cars with electric heat were assigned to East Side.



INSTRUCTIONS FOR OPERATING PASSENGER CAR HEATERS

From a 1920 TCRT rulebook insert.

The Company asks each motorman to give special attention to his car heater this winter.

Upon the proper use of drafts and dampers depends the comfort of the passengers, the amount of coal used, and the life of the heater.

A car which is too hot is just as uncomfortable as a car which is too cold.

Operate your heater so that the greatest amount of heat will go into the car and the least possible amount of heat will go up the chimney.

Don't let the number of pull-ins on account of heater trouble be increased because of improperly regulated fires.

The Right Way to Fire

1. The check draft damper controls the rate at which the fire burns, just as the throttle controls an engine's speed. Open it to check fire, close it to increase draft. Do not open coal lid in Baker heater to check fire.

2. The turn damper should be kept nearly closed most of the time. If allowed to remain open, most of the heat goes up the chimney.

3. There should be just enough draft and no more. The slide door at bottom of heater regulates draft. Don't open coaling door to check fire. A layer of

ashes on grate will give better regulation when low fire is desired.

4. Grates should be shaken with one or two short, quick strokes. In severe weather shake only until a glow appears in ash pit. The best time to shake fire is when it is burning well and car is warm; you can then shake out surplus ashes, put on fresh coal and have fire burning well again before water in pipes has cooled down.

5. Pressure on the gauge should never show more than seven pounds. The water must be circulating before any pressure is allowed.

6. When a hot fire is required, add coal in small quantities rather than in large amounts at one time. If a large amount of coal is put in at one time, more gas is generated than can be burned, with consequent waste. In the

Twin City heater a sluggish fire can be made to burn brightly by turning the forced draft damper low down near the floor at right of heater. This damper admits air to under side of grate from funnel-shaped intake under car. It should be used only until the fire is well started.

7. In case of low water, report at first opportunity to starter, inspector, or call the station by telephone.

When filling coal buckets see that no coal is spilled on the ground.

Do not throw out empty coal buckets from cars.

Do not pull car in and leave heater fire in such condition as it is likely to go out quickly. Frozen pipes necessitate heavy repair expenses and hold car out of service for a long period of time.



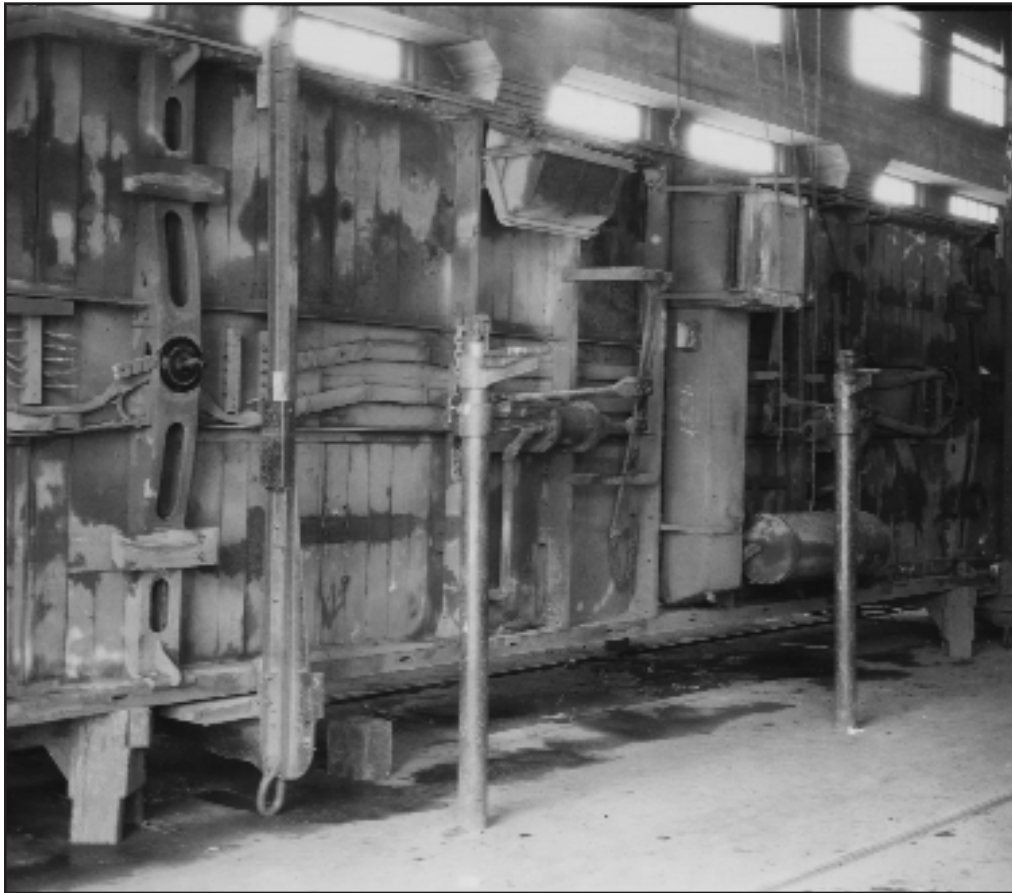
Far left: The one-man cars received electric heaters on both platforms but retained the coal-fired hot air heaters in the passenger compartment. Note the hot air duct rising up in the right front corner. In the all-electric heated cars like 1300, this duct carried waste heat from the resistors under the car.

Left: The front stairwell received extra electric heaters to counter the cold air coming in through the open front door. There were separate door switches so the motorman could open only a single door to minimize heat loss.

Opposite top: The exhaust chimney of a hot air heated car.

Opposite bottom: An overturned car at Snelling Shops shows the heater at top center, the ductwork extending across the car under the floor and, behind the heater, the coal hopper.

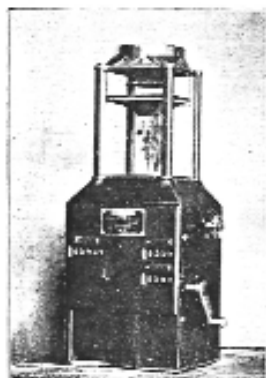
Opposite far right: The aftermath of a heater fire. St. Paul Pioneer Press photo.





One of the companies most recently added to the long and growing list of Railways using
Johnson Registering Fare Boxes
 is the Minneapolis (Minn.) Street Railway Company

Needless to say, their order was placed only after thorough trials and tests of various types and systems had been made.



Three Dial Fare Box for Handling Metal Tickets and Old Coin Fares

Johnson Fare Boxes are not purchased at first sight. They must prove to the entire satisfaction of the Railway company that they will collect fares more accurately and quickly than where the old system is used; will collect from every passenger and record every fare. Where the overhead clock register is used in connection with Johnson Boxes a double check is furnished on collection of fares.

A conservative estimate of average daily increased revenues, due to the installation of the Johnson Registering Fare Box, has been found to be at least \$1.00 per car per day. Assuming that an average of fifty cars are in daily operation, means an annual increase in revenue of approximately \$18,000.00, which will more than pay for the installation of the registering fare box.

Under present conditions with new men on your platforms almost every day, the element of error is more than ever in evidence.

Let the Johnson System "get all the money" for you.
 Obtain our co-operation in the solution of your problem.

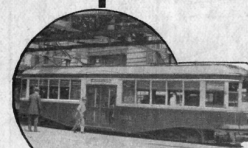
JOHNSON FARE BOX COMPANY

Jackson Boulevard and Robey Street, Chicago
 50 East 42nd Street, New York

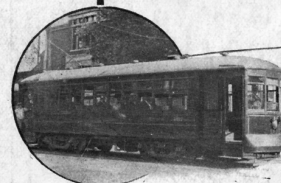
The G-E Ventilated Railway Motor

has proven its ability to do more work per pound of weight and to meet the requirements for excellence and low maintenance on more than a score of large progressive roads that have made improvements or extensions during the past three years.

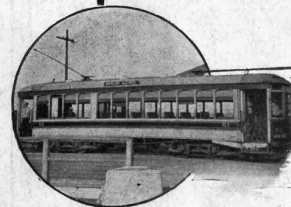
Your road cannot afford to underestimate the value of the excellent design, workmanship and materials incorporated in the modern G-E Motor—a motor which has every modern improvement including the exclusive G-E method of ventilation—the greatest single advance since the introduction of commutating poles.



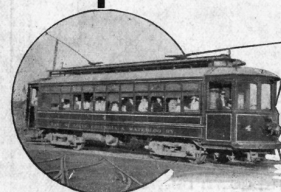
Brooklyn



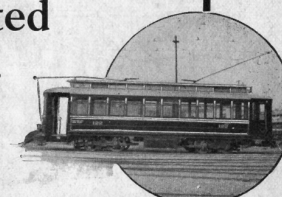
Chicago



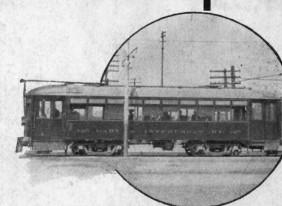
Hampton, Va.



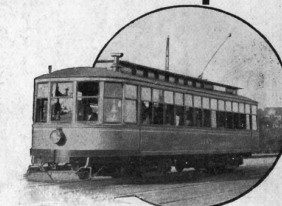
St. Louis



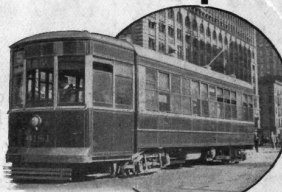
Richmond



Gary



Twin City Lines



Buffalo

General Electric Company

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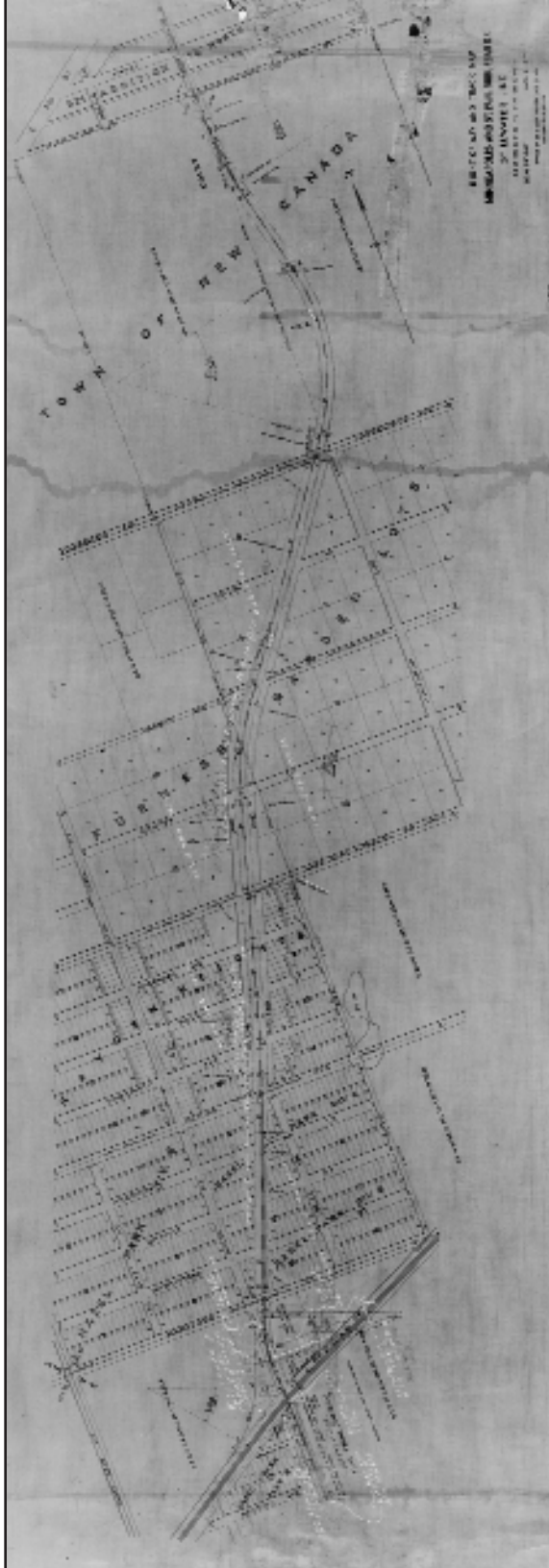
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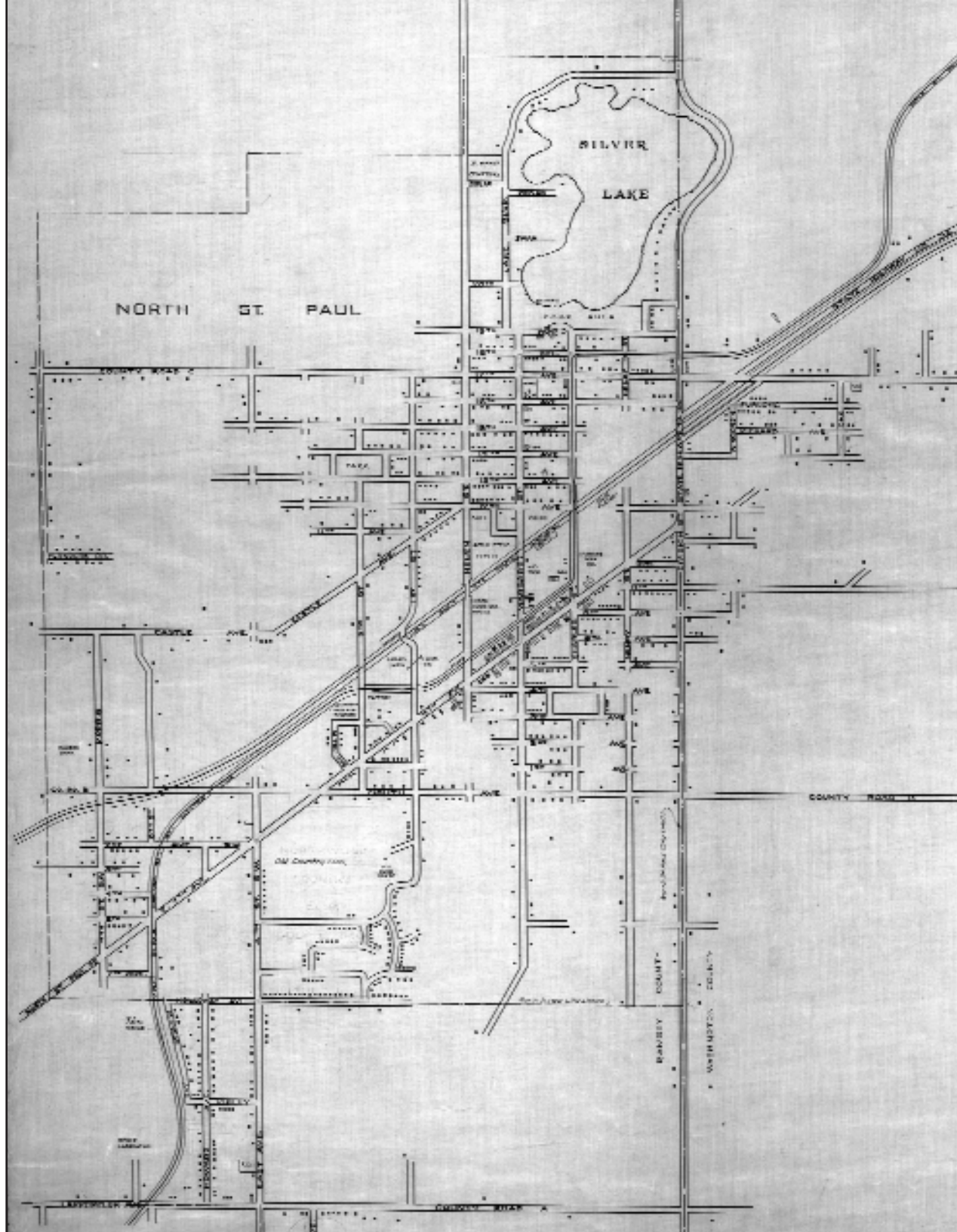
TCRT prided itself on manufacturing most of its own components, but it bought Johnson fare boxes and GE motors for its home-built trucks, hence these trade journal ads.

An aerial photograph showing a city street, East 7th Street, running diagonally from the top left towards the bottom right. To the left of the street is a residential neighborhood with many small houses. To the right is an industrial area with large buildings, a water tower, and a large yard filled with many railroad cars. Several railroad tracks run parallel to the street on the right side. The image is in black and white.

The Hazel Park-Mahtomedi line followed East 7th Street as it angled from northeast to straight east at Earl Street. Two blocks later it passed Duluth Avenue Station, the line's home base. Minnesota Historical Society collection.



These two TCRT right of way maps show the Hazel Park-Mahtomedi line from the Omaha overpass (bottom of the map at left) through North St. Paul (top right corner of map at right). The top of the left map and the bottom of the right map overlap, both showing the half mile north from the city limits at Larpenteur Avenue.





MINNESOTA STREETCAR MUSEUM

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www.TrolleyRide.org

August 2021

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